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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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EXAMINER

SHAW, PELING ANDY

ART UNIT PAPER NUMBER

2144

DATE MAILED: 02/28/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/045,303

Applicant(s)

STEPHENS, JAMES H.

Examiner

Peling A. Shaw

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 07 December 2005.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-20 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-20 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 29 October 2001 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

1. Amendment received on 12/07/2005 has been entered. Claims 1, 4, 5, 11-13, 16, 17 and 20 are amended. Claims 1-20 are still pending.

Priority

2. This application has no priority claim made. The filing date is 10/29/2001.

Claim Rejections - 35 USC § 103

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1-20 are rejected under 35 U.S.C. 103(a) as being unpatentable over Natarajan et al. (US 6505244 B1), hereinafter referred as Natarajan as applied to claims 1 and 2, and further in view of Evans (US 5694524 A), hereinafter referred as Evans and Yates et al. (US 6330586 B1), hereinafter referred as Yates.

- a. Natarajan shows (claim 1) a method for modeling video conferencing network reliability (column 2, line 15-22; column 6, lines 49-65; column 29, line 37-column 30, line 33), the method comprising: obtaining historical data for multiple video conferences (Fig. 17, item 1706, 1722; column 29, line 37-column 30, line 33); storing said historical data in a call history table (Fig. 15; column 7, lines 12-43: feedback-based adaptive network, report network information to a centralized data storage entity); executing a modeling algorithm that produces a model representing

the historical data (Fig. 17, item 1718 and 1720; column 6, lines 49-65; column 29, line 37-column 30, line 33); analyzing the model to identify characteristics associated with undesirable outcomes for the video conferences (Fig. 17, item 1720, 1724, 1726, 1728; column 6, lines 49-65; column 29, line 37-column 30, line 33); and configuring a video teleconferencing network to avoid at least one of the identified characteristics associated with undesirable outcomes (Fig. 17, item 1708, 1710, 1712, 1714; column 6, lines 49-65; column 29, line 37-column 30, line 33). Natarajan does not show (claim 1) said historical data referenced to video teleconferencing equipment vendor or model identification information; (claim 3) wherein the operation of executing a decision tree algorithm comprises executing an ID3-based algorithm; (claim 7) wherein: the method further comprises building a training set from the historical data; the operation of executing the modeling algorithm comprises applying the modeling algorithm to the training set; and the operation of analyzing the model comprises: deriving a rule set from the model; and analyzing the rule set to identify the characteristics associated with undesirable outcomes for the video conferences; (claim 9) the specification of multiple vendors in collecting and processing video conference service performance data.

- b. Yates shows (claim 1) said historical data referenced to video teleconferencing equipment vendor or model identification information and (claim 9) the specification of multiple vendors in collecting and processing video conference service performance data (column 5, line 67-column 6, line 12) in an analogous art for the purpose of reconfigurable service provision via a communication network.

- c. Evans shows (claim 3) wherein the operation of executing a decision tree algorithm comprises executing an ID3-based algorithm (column 9, line 12-19); (claim 7) wherein: the method further comprises building a training set from the historical data (column 1, line 51-column 2, line 13; column 2, line 42-58); the operation of executing the modeling algorithm comprises applying the modeling algorithm to the training set (column 1, line 51-column 2, line 13; column 2, line 42-58); and the operation of analyzing the model comprises: deriving a rule set from the model (column 1, line 51-column 2, line 13; column 2, line 42-58); and analyzing the rule set to identify the characteristics associated with undesirable outcomes for the video conferences (column 1, line 51-column 2, line 58); (claim 9) in an analogous art for the purpose of system and method for identifying conditions leading to a particular result in a multi-variant system.
- d. It would have been obvious to a person of ordinary skill in the art at the time of the invention was made to modify Natarajan's functions of policy engine which supports application specific plug-ins for enforcing policies in a feedback-based, adaptive data network with Evans' functions of using decision tree and training data set, particularly ID3 extension C4.5 algorithm, Yates's functions of identifying a particular result in a multi- variant system, and with specifying vendor consideration in the network performance data collection.
- e. The modification would have been obvious because one of ordinary skill in the art would have been motivated to be able to use decision tree algorithm per Natarajan' teaching and training data set in analyzing video conference performance, particularly

- ID3 and its extension per Evans' teaching, and to include multiple vendor consideration in specifying network performance data set per Yates's teaching.
- f. Regarding claim 2, Natarajan shows wherein the operation of executing a modeling algorithm that produces a model comprises executing a decision tree algorithm (column 14, lines 5-50; column 15, lines 1-37: decision tree).
- g. Regarding claim 4, Natarajan shows further comprising conducting a new video conference with the video teleconferencing network configured to avoid at least one of the identified characteristics associated with undesirable outcomes (Fig. 17, item 1720, 1724, 1726, 1728; column 29, line 37-column 30, line 33).
- h. Regarding claim 5, Natarajan shows further comprising: updating the historical data to create new historical data that includes values representing characteristics of the new video conference (Fig. 15; column 7, lines 12-43: feedback-based adaptive network, report network information to a centralized data storage entity; Fig. 17, item 1706, 1722; column 29, line 37-column 30, line 33); executing the modeling algorithm to produce a new model representing the new historical data (Fig. 17, item 1718 and 1720; column 29, line 37-column 30, line 33; column 14, lines 5-50; column 15, lines 1-37: decision tree); analyzing the new model to produce a result (Fig. 17, item 1720, 1724, 1726, 1728; column 29, line 37-column 30, line 33); and reconfiguring the video teleconferencing network according to the result (Fig. 17, item 1708, 1710, 1712, 1714; column 29, line 37-column 30, line 33).
- i. Regarding claim 6, Natarajan shows further comprising: evaluating the model to determine whether the model provides a desired level of efficacy (Fig. 17, item 1720,

1724, 1726, 1728; column 29, line 37-column 30, line 33); and in response to determining that the model does not provide a desired level of efficacy, using a different modeling algorithm to produce a different model (Fig. 17, item 1720, 1724, 1726, 1728; column 29, line 37-column 30, line 33).

- j. Regarding claim 8, Natarajan shows wherein: the historical data includes attribute values for attributes of each video conference and an outcome value representing an outcome for each video conference (column 2, line 15-22; column 29, line 37-column 30, line 33); and the operation of applying the modeling algorithm to the training set comprises: using the outcome values as categorical attributes for the modeling algorithm (column 2, line 15-22; column 29, line 37-column 30, line 33); and using the attribute values as non-categorical attributes for the modeling algorithm (column 2, line 15-22; column 29, line 37-column 30, line 33).
- k. Regarding claim 10, Natarajan shows wherein: the training set includes values representing a first set of attributes (Fig. 17, item 1706, 1722); and the method further comprises: evaluating the model to determine whether the model provides a desired level of efficacy (Fig. 17, item 1720, 1724, 1726, 1728); in response to determining that the model does not provide a desired level of efficacy, building a different training set that includes a different set of attributes (Fig. 17, item 1720, 1724, 1726, 1728); and applying the modeling algorithm to the different training set to produce a different model (Fig. 17, item 1708, 1710, 1712, 1714).
- l. Claims 11-14, 16 and 20 are of the same scope as claims 1-2 and 5. These are rejected for the same reasons as for claims 1-2 and 5.

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m. Claims 15 and 17-19 are of the same scope as claims 3 and 7-9. These are rejected for the same reasons as for claims 3 and 7-9.

Together Natarajan, Evans and Yates disclosed all limitations of claims 1-20. Claims 1-20 are rejected under 35 U.S.C. 103(a).

Response to Arguments

4. Applicant's arguments filed on 12/07/2005 have been fully considered, but they are not persuasive.
 - a. In response to statements in the last paragraph of page 11, applicant alleged that vendor identification and model identification information are included in the collection of historical data. However, including either vendor identification or model identification information would not affect the claimed invented functions (limitations). It is also obvious to a person of ordinary skill in the art at the time of the invention was made that a network equipment configuration data contains the vendor identification and model identification for multiple vendor network management environment as per Yates' teaching. Thus together Natarajan and Yates have all limitations of claim 1, 11 and 20.

Remarks

6. The following pertaining arts are discovered and not used in this office action. Office reserves the right to use these arts in later actions.

- a. Hales et al. (US 6288739 B1) Distributed video communications system
- a. Grabelsky et al. (US 6678250 B1) Method and system for monitoring and management of the performance of real-time networks

Conclusion

7. THIS ACTION IS MADE FINAL. Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

8. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Refer to the enclosed PTO-892 for details.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Peling A. Shaw whose telephone number is (571) 272-7968. The examiner can normally be reached on M-F 8:00 - 4:00.


If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, David A. Wiley can be reached on (571) 272-3923. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished

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